



## User Guide DM-210/220 Dot Matrix POS Printer



## Important Safety Instructions (English)

Read the following instructions thoroughly before starting up your printer.

- The device and mains-socket must all times be easily accessible.
- Never carry out maintenance or repair work yourself. Always contact a qualified technical service.
- Keep this user guide in a place which is easily accessible at all times.
- Place the printer on a solid and even base so that it cannot fall.
- Never place the printer in the vicinity of inflammable gas or explosive substances.
- Ensure the printer is connected to a socket with the correct voltage.
- Always disconnect the printer from the power before opening the device to perform maintenance work or remedy errors.
- Do not expose the printer to high temperatures, direct sunlight or dust.
- Keep all liquids away from the printer.
- Protect the printer from shock, impact and vibration.
- Make sure that both the printer and the computer are switched off before connecting the data cable.
- The print head will become very hot during printing; avoid contact with the print head after printing has finished.
- Do not perform any operation or action in any way other than those provided in this manual. When in doubt, contact your dealer or your customer support.

## Wichtige Sicherheitshinweise (German)

Lesen Sie bitte diese Sicherheitshinweise durch, bevor Sie den Drucker in Betrieb nehmen.

- Das Gerät und die Netzsteckdose müssen jeder Zeit leicht zugänglich sein.
- Führen Sie Wartungsarbeiten und Reparaturen keinesfalls selbst aus, sondern verständigen Sie immer einen qualifizierten Servicetechniker.
- Bewahren Sie diese Dokumentation an einem jederzeit zugänglichen Ort auf.
- Den Drucker auf stabilem und ebenem Untergrund so aufstellen, dass er nicht zu Boden fallen kann.
- Stellen Sie den Drucker keinesfalls in der Nähe von leicht entzündlichen Gasen oder explosiven Stoffen auf.
- Den Drucker nur an eine Steckdose mit der richtigen Spannung anschließen.
- Wenn Sie den Drucker vom Netz trennen wollen, den Drucker ausschalten und immer den Netzstecker an der Steckdose ziehen.
- Den Drucker weder hohen Temperaturen noch direktem Sonnenlicht und Staub aussetzen.
- Keine Flüssigkeiten mit dem Drucker in Berührung bringen.
- Den Drucker keinen Erschütterungen, Stößen oder Vibrationen aussetzen.
- Sicherstellen, dass der Drucker und der Computer ausgeschaltet sind, bevor das Datenkabel angeschlossen wird.
- Der Druckkopf wird während des Druckens heiß. Vor dem Berühren deshalb einige Zeit abkühlen lassen.
- Weichen Sie bei der Bedienung des Druckers nicht von den Anweisungen in der Dokumentation ab. Bei Unklarheiten wenden Sie sich bitte an Ihren Händler oder Ihren Kundendienst.

## Consignes importantes de sécurité (French)

Lire attentivement les instructions suivantes avant de mettre l'imprimante en service.

- Le dispositif et la prise principale doivent toujours être accessibles facilement.
- Ne jamais effectuer soi-même les travaux d'entretien et de réparations. Contacter toujours un réparateur qualifié.
- Placer l'imprimante sur un support stable de façon à ce qu'elle ne puisse pas tomber.
- Ne jamais placer l'imprimante à proximité de sources de gaz aisément inflammables ou de substances explosives.
- Ne connecter l'imprimante à une prise que lorsque la tension est correcte.
- Pour déconnecter l'imprimante de l'alimentation principale, mettre l'imprimante hors tension et toujours débrancher le connecteur secteur de la prise murale.
- Ne pas exposer l'imprimante à des températures élevées, à la lumière directe du soleil ou à la poussière.
- Ne pas mettre l'imprimante en contact avec des liquides.
- Ne pas exposer l'imprimante à des chocs, impacts ou vibrations.
- S'assurer que l'imprimante et l'ordinateur sont hors tension avant de connecter le câble de données.
- La tête d'impression est brûlante pendant l'impression. C'est pourquoi laissez-la refroidir quelques instants avant d'y toucher.
- N'exécutez aucune opération ni action d'une autre manière que celle indiquée dans ce manuel. En cas de doute, veuillez contacter votre distributeur ou service après-vente.

## Indicazioni di sicurezza importanti (Italian)

Prima di mettere in funzione la stampante, leggere attentamente le seguenti indicazioni.

- Il dispositivo e la presa di corrente devono essere sempre facilmente accessibili.
- Non eseguire mai da sé gli interventi di manutenzione e riparazione, ma rivolgersi sempre a un tecnico di assistenza qualificato.
- Conservare le presenti istruzioni per l'uso in un luogo sempre accessibile.
- Collocare la stampante su una superficie stabile, per evitare che cada a terra.
- Non collocare la stampante in prossimità di gas facilmente infiammabili o di sostanze esplosive.
- Collegare la stampante a una presa di corrente con tensione adeguata.
- Per scollegare la stampante dalla rete di alimentazione, spegnere la stampante e disinserire sempre il connettore di rete dalla presa.
- Non esporre la stampante ad elevate temperature né alla luce solare diretta e alla polvere.
- Evitare il contatto della stampante con liquidi.
- Non esporre la stampante a colpi, scosse o vibrazioni.
- Verificare che la stampante e il computer siano spenti prima di collegare il cavo di trasmissione dati.
- Durante la stampa, la testina si surriscalda notevolmente. Prima di toccarla, se necessario opportuno quindi lasciarla raffreddare qualche istante.
- Non eseguire alcuna operazione o azione se non nella maniera descritta nel presente manuale. In caso di dubbio, contattare il rivenditore o dalla società incaricata dell'assistenza.

## Instrucciones de seguridad importantes (Spanish)

Lea las siguientes instrucciones con esmero antes de poner la impresora en servicio.

- El dispositivo y la toma de corriente deben estar ubicados de forma que sea fácil acceder a ellos.
- Nunca lleve a cabo trabajos de mantenimiento o reparación Ud. mismo, sino consulte a un técnico de servicio calificado.
- Guarde las presentes instrucciones de servicio en un lugar de fácil acceso en cualquier momento.
- Ponga la impresora sobre un base estable de manera que no pueda caer al suelo.
- Nunca coloque la impresora en la vecindad de gases de fácil inflamabilidad o sustancias explosivas.
- Asegure conectar la impresora sólo a un enchufe con un voltaje correcto.
- Cuando quiera desconectar la impresora de la red, apague la impresora y siempre tire la clavija de alimentación del enchufe.
- No exponga la impresora a temperaturas altas, a la luz solar directa y al polvo.
- No ponga la impresora en contacto con fluidos.
- Nunca exponga la impresora a sacudidas, choques o vibraciones.
- Asegúrese de que la impresora y el ordenador estén apagados antes de conectar el cable de datos.
- La cabeza de impresión se pone muy caliente durante la impresión. Por lo tanto, deje enfriarlo algún tiempo antes de tocarla.
- No permita que se realice cualquier operación o acción de una forma diferente a lo que se señala en el manual. En caso de duda, póngase en contacto con su comerciante o con su servicio post-venta.

## Правила по технике безопасности. (Russian)

Прочитайте, пожалуйста, инструкцию по технике безопасности перед включением в работу принтера.

- Устройство и розетка должны быть всегда легко доступны.
- Не выполняйте технические работы и ремонт техники самостоятельно, но сообщайте о неисправностях квалифицированным сервисным техникам.
- Данная инструкция должна быть всегда доступна каждому пользователю.
- Установите принтер на ровном и стабильном месте так, чтобы он не смог упасть на пол.
- Ни в коем случае не ставьте принтер вблизи легко воспламеняющихся газов и взрывчатых веществ.
- Включайте принтер в розетку только с соответствующим напряжением.
- Если Вы хотите отключить принтер от напряжения, сначала выключите принтер сам и затем выньте штекер из розетки.
- Берегите принтер от нагревания, от попадания на него прямых солнечных лучей и пыли.
- Не допускайте попадания жидкости на принтер.
- Нельзя подвергать принтер тряске, ударам и вибрации.
- Убедитесь, что принтер и компьютер выключены, только после этого соедините принтер с компьютером.
- Печатающая головка нагревается во время работы принтера. Поэтому подождите какое-то время, прежде чем дотронуться до нее.
- Пользуйтесь принтером так, как это написано в документации. Если у Вас возникают неясности, обращайтесь с вопросами к Вашим продавцам или в сервисный центр.

## Instruções Importantes sobre Segurança (Portuguese)

Leia as instruções de segurança antes de usar a impressora.

- A impressora e a tomada devem ser facilmente em todos os momentos acessíveis.
- Consulte sempre um técnico qualificado para executar uma reparação .
- Coloque a impressora sobre uma base sólida e nivelada, para que ela não sofra quedas.
- Jamais instale a impressora nas proximidades de lugares onde haja gás inflamável ou substâncias explosivas.
- Assegure-se de conectar a impressora à tomada elétrica com a voltagem apropriada.
- Quando desligar a impressora da rede, desligue sempre a impressora e retire o cabo da tomada.
- Não exponha a impressora a temperaturas altas ou luz solar direta.
- Não aproxime substâncias líquidas da impressora.
- Proteja a impressora de choques, impactos e vibrações.
- Desligue a impressora e o computador antes de conectar o cabo da rede.
- A cabeça da impressora pode ficar muito quente . Portanto, espere algum tempo antes de tocá-la.
- Não faça nenhuma operação ou ação além das recomendadas neste manual. Em caso de dúvida, contate seu revendedor ou companhia de serviço.



## Önemli Güvenlik Talimatları (Turkish)

Lütfen, yazıcıyı işleme geçirmeden önce bu güvenlik talimatlarını bütünüyle dikkatle okuyun.

- Cihaz ve elektrik prizinin her zaman kolayca erişilebilir olması gerekir.
- Bakım ve tamir çalışmalarını kesinlikle ve hiçbir surette kendi başınıza yapmayın; her zaman kalifiye bir uzman servis-teknişyenine haber verin.
- Yazıcıyı, üzerinden yere düşmesi mümkün olmayacak sabit ve düz bir zemine yerleştirin.
- Yazıcıyı kesinlikle ve hiçbir surette kolayca yanabilecek gaz veya patlayıcı maddeler içeren nesnelere yakınına koymayın.
- Yazıcı akım kablosunu sadece doğru gerilime sahip bir prize takın.
- Yazıcıyı şebeke ağından ayırmak istediğinizde, yazıcıyı kapatın ve ağ-fişini her zaman prizden çıkartın.
- Yazıcıyı ne yüksek ısı ne de doğrudan güneş ışığına ve toza mâruz kalan mekânlarda bulundurun.
- Yazıcı hiçbir sıvı maddeyle temasta olmamalıdır.
- Yazıcı hiçbir sarsıntıya, darbeye veya titreşime mâruz kalmamalıdır.
- Veri kablosu bağlanmadan önce hem yazıcının hem de bilgisayarın kapalı olduklarından emin olmalısınız.
- Yazıcının başı basma esnasında yüksek ısıya ulaşıyor. Bu yüzden lütfen dokunmadan önce kısa süre soğumasını bekleyin.
- Yazıcının işletimi ve kullanımında bu dokümantasyondaki talimatların hiç dışına çıkmayın. Sorunlu görünen hususlarda lütfen imâlatçınıza veya müşteri hizmetleri servisimize başvurun.

## **TRADEMARK ACKNOWLEDGEMENTS**

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# 1 Printer Installation Guide

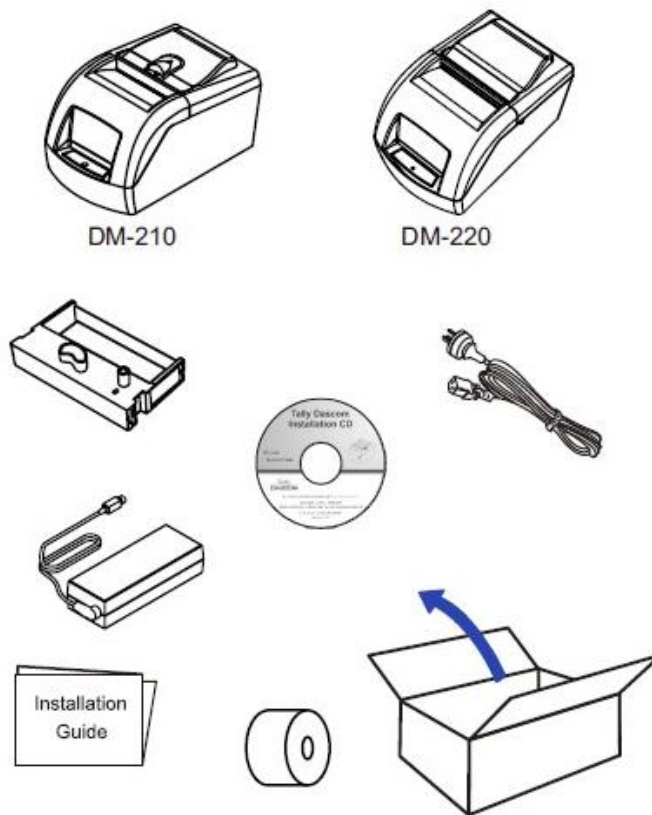
## 1.1 Unpacking the Printer

Open the packaging, lift the printer out of the cardboard box and remove the remaining packaging material. Check the printer for any visible transport damage and missing items. If you find any transport damage or any accessories are missing, please contact your dealer for assistance.



Please keep the packaging material for future transportation.

The shipping list varies with different customized order requirements.



### ■ Shipping List

Printer	1 Unit
Ribbon	1 PCS
Power adapter	1 PCS
Power cord	1 PCS
Roll paper	1 PCS
Graphical installatin guide	1 PCS
CD disk	1 PCS

**■ Difference between models**

Model No.	Paper Cut		Interfaces				Function		
	Tear Bar	Auto-Cutter	Cash Drawer	USB	Serial	Parallel	Black mark	Bluetooth	Wi-Fi
DM-210	✓		✓	✓	○	○	○	○	○
DM-220		✓	✓	✓	○	○	○	○	○

Note: “✓” indicates standard configuration.

“○” indicates optional configuration.

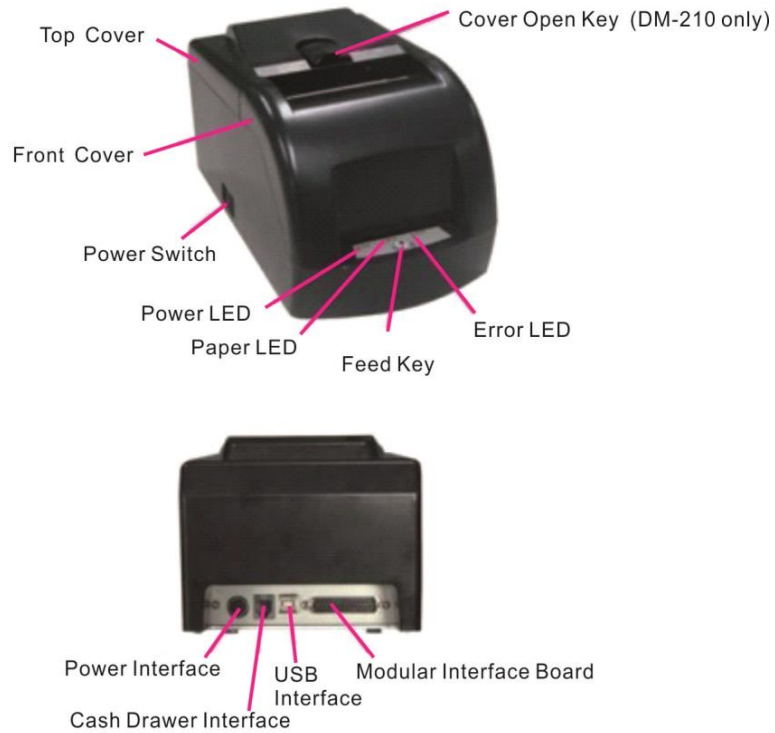
**1.2 Placing the Printer**

Place the printer on a solid, flat, stable surface; ensuring that the printer is positioned in such a way that it cannot move, and that there is easy access to the control panel and paper input devices. Also ensure that there is enough space for sufficient ventilation and for the printed output.

When selecting the printer location, observe the following additional instructions:

- Never place the printer near to any flammable gas or explosive substances.
- Do not expose the printer to direct sunlight. If you cannot avoid placing the printer near a window, protect it from the sunlight with a curtain.
- When connecting a computer to the printer, make sure the maximum recommended cable length is not exceeded.
- Ensure sufficient distance between the printer and any heating devices or radiators.
- Avoid exposing the printer to extreme temperature or air humidity fluctuations. Avoid exposure to dusty environments.
- It is recommended the printer is installed in a position which reduces noise exposure to the work place during printing.

### 1.3 Printer Components



Components		Function
Cover Open Key		Open the Printer Cover (DM-210 only).
Top Cover		Open the cover for loading or replacing roll paper.
Front Cover		Open the cover for loading or replacing ribbon cartridge.
Power Switch		Powers printer ON or OFF.
Control Panel	Power LED	Shows the power status.
	Paper End LED	Shows roll paper out or not.
	Error LED	Indicates internal error occurs.
	Feed Key	Press the key to feed paper.
Power Supply Socket		Connects power cord to the printer.
Cash Drawer Interface		Connects Cashbox interface cable from the cashbox.
USB Interface		Connects USB interface cable from the host.
Modular Interface Board		Connects serial interface or parallel interface from the host.

## 1.4 Connecting the Interfaces

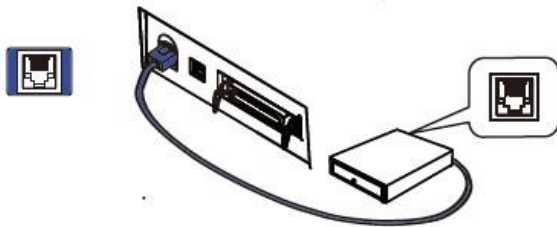
The USB, Cash drawer, Serial or Parallel interfaces are located at the rear of the printer. Choose the interface which suits your system.



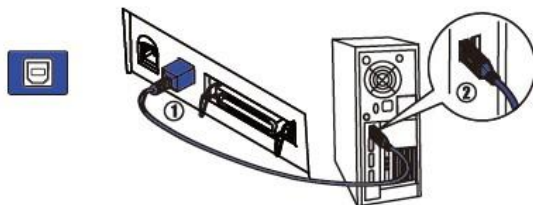
Make sure the printer and the computer are switched off before connecting or disconnecting the interface cable to prevent electrical damage to the interfaces.

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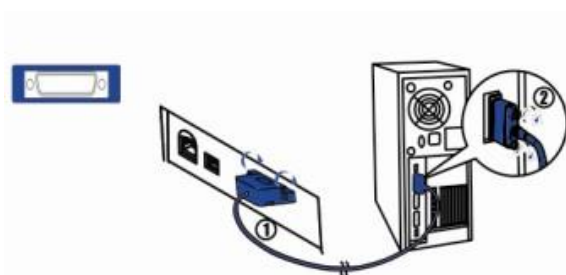
### ■ Connecting cash drawer interface



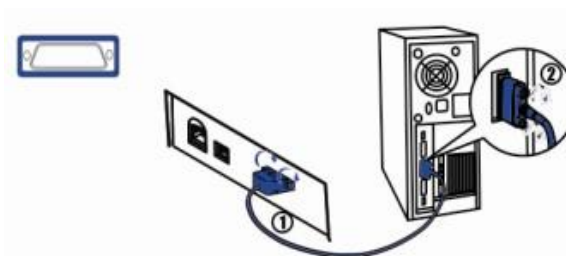
### ■ Connecting USB interface



### ■ Connecting parallel interface



### ■ Connecting serial interface





## 1.4 Connecting the Power

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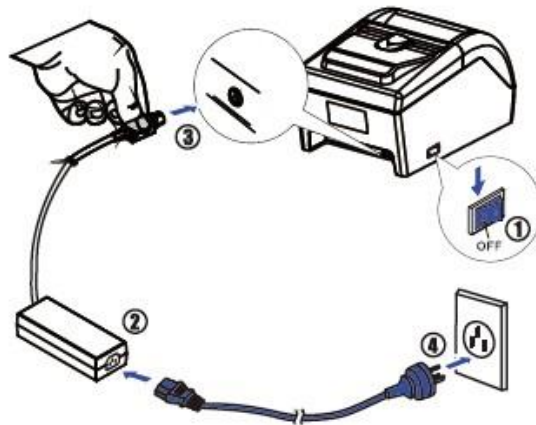
### Checking the voltage of the power adapter



Before you connect the power adapter to the power socket check if the voltage is correct. If you connect the power adapter to power with incorrect voltage this may result in electrical damage to adapter and printer.

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1. Make sure the printer and the computer are powered off ①.
2. Connect the power cord to the power adapter ②, and connect the power adapter to the power supply socket at the rear of the printer ③. Ensure the power cord is securely connected. Finally, connect the power cord plug to a mains socket on the wall ④.



### ■ Power on and power off

1. Press the power switch to the “I” position to turn on the printer.  
Upon power-on, the Power LED indicator light up.
2. Press the power switch to the “O” position to turn off the printer.

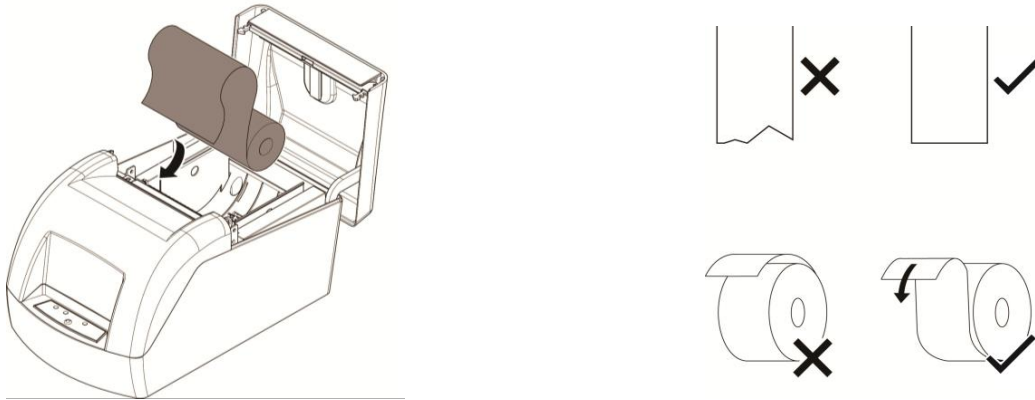


- After switching off the printer, wait at least 5 seconds before powering on again. Otherwise, it may cause damage to the printer.
  - Please disconnect the AC mains power if the printer will not be used for a long time.
-

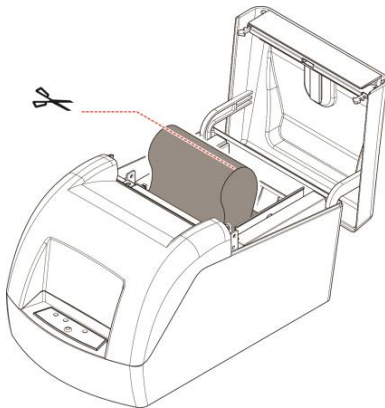
## 1.5 Installing Roll Paper

(1) Keep power on and open the top cover.

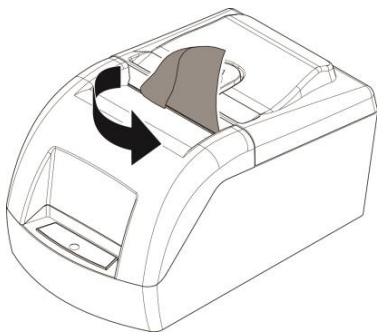
(2) When you load the roll paper for the first time, insert the paper as shown below, the paper feed motor will move the paper into paper path automatically. And then you can proceed with Step (4).



(3) When you replace the roll paper, cut the paper as shown below and press Feed key for feeding the rest of paper. Do not pull the paper backwards in the opening of paper path to avoid paper jammed. Then load a new roll paper as Step (2).

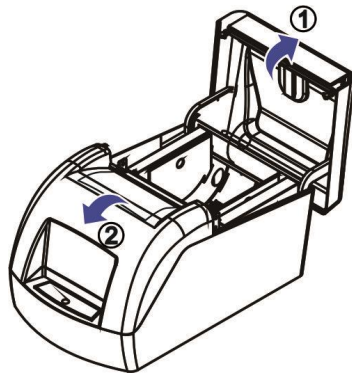


(4) Close the top cover and tear the paper end as shown below.

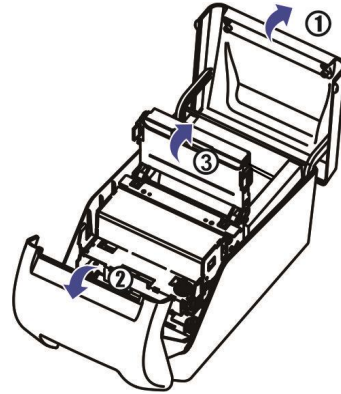


## 1.6 Installing Ribbon Cartridge

1. DM-210: Open the top cover and then front cover.  
DM-220: Open the top cover and then front cover; turn up the cut device.

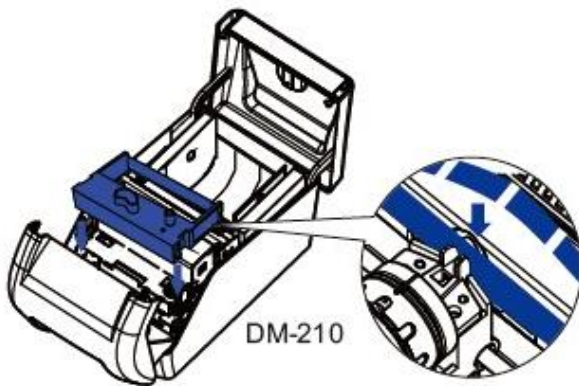


DM-210

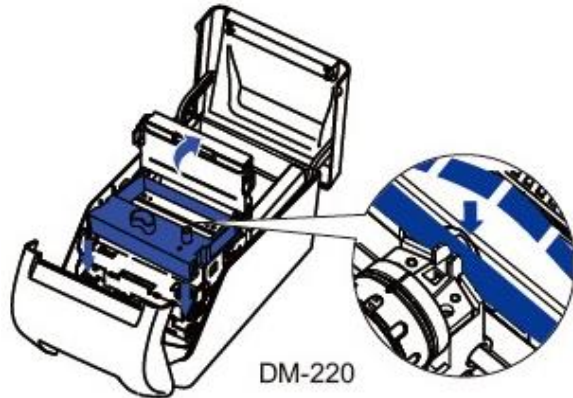


DM-220

2. Stretch the ribbon fabric by turning the ribbon knob - pay attention to the arrow on the ribbon cartridge.
3. Insert the ribbon between the print head and the platen, and press it in until it clicks into place.

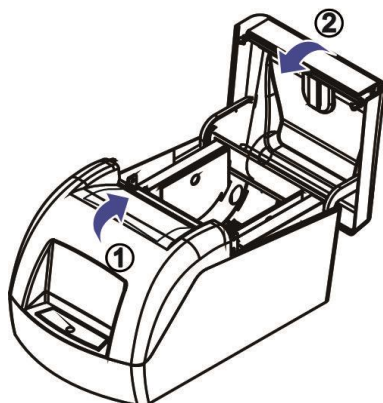


DM-210

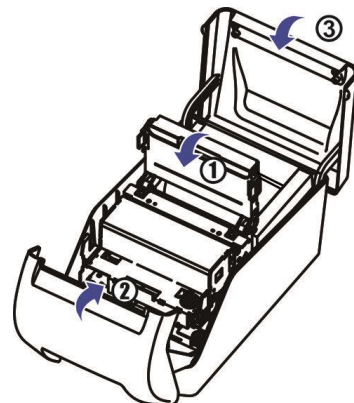


DM-220

4. Turn the knob again to stretch the ribbon fabric.
5. DM-210: Close the front cover and then top cover.  
DM-220: Close the cut device; close the front cover and then top cover.



DM-210



DM-220

## 1.7 Installing the Printer Driver



Switch off the printer before running the printer driver setup.

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Your printer CD-ROM comes with Windows drivers. Go to the Drivers folder and run the installer “DriverSetup.exe”.

### ■ Installation guide for USB, serial and parallel driver program

1. Double click the “DriverSetup”. You will see the screen as below. Click “Next” to continue.



2. You can see the screen as below. Select the desired printer driver, and then click “Next” to continue.



3. Choose the desired port to use, and then click "Next" to continue.



4. Click "Finish" to finish the installation process successfully.

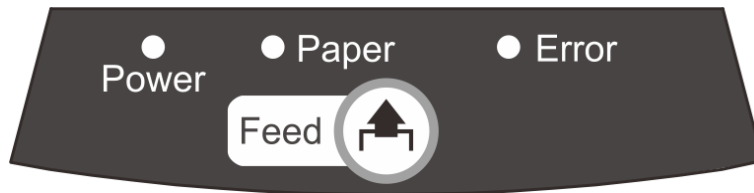


5. You will see the screen as below. Click "OK" to install the printer driver successfully.



## 2 Control Panel Operation

The printer control panel consists of one Feed key, a green Power LED, a red Paper end LED and a red Error LED.



### 2.1 Feed Key

After installing ribbon cartridge and roll paper, you can do function test with feed key.

Funtion	Operation	Remarks
Self-test	Hold down the feed key; do not release the key until you switch on the printer.	
Bidirectional printing adjustment	Press the feed key after the self-test.	The alignment parameter for bidirectional printing will change circularly along with pressing feed key and the printer will print out the reference typeface.
Hexadecimal Dump	After self-test, send any data from PC to the printer.	
Feed the paper for one line	Press the feed key once.	
Feed the paper continuously	Hold down the feed key.	It won't stop feeding until you release the feed key.

- If you do not need to enter the alignment (self-test), please switch off the printer and restart the printer for normal operation.
- When typefaces are blurred or vertically misaligned, it is necessary to do the bidirectional printing quality adjustment.
- When self-test is OK but on-line printing error occurs, you can check the communication between PC and program via Hexadecimal Dump mode. At Hexadecimal Dump mode, the printer will print out hexadecimal data once it receives the signal from PC. You can ask technical service or dealer for analysis.

Self-test Page Reference Sample

```

****DM-210 Menu settings****

Hardware Version: D116MBV42
Firmware Version: 4.36.01
Product date: 2012-10-17
Serial Number: 212335436943
PNP ID: DM-210

FontA(9x8):
!"#%&'()*+,-./0123456789;:<=>?@ABC
DEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdef
ghijklmnopqrstuvwxyz{|}~

FontB(7x8):
!"#%&'()*+,-./0123456789;:<=>?@ABCDEFGHJI
JKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqr
stuvwxyz{|}~

Baud rate: 9600bps
Black mark to Print head: 13.9mm
Black mark to cut position: -40.1mm
Length from mark to mark: 101.6mm
Black mark: Disable
Cutter mode: Enable
Cut type: Partial cut

ABCDEFGHIHabcdefgh
ABCDEFGHIHabcdefgh
Tally DASCOM

Self-Test printing is completed

The Printer is now in Hex Dump mode until
power off the device or pressing the FEED
key to enter into the Vertical alignment
adjustment.
    
```

Hexadecimal Dump Reference Sample

```

Hexadecimal dump Print:
1B 40 1D
1B 40 1C 2E 1B 21 01 41 42 43 44 45 46 47
48 49 4A 4B 4C 4D 4E 4F 50 51 52 53 54 55
56 57 58 59 5A 0A 1B 40 1C 2E 1B 21 01 41
42 43 44 45 46 47 48 49 4A 4B 4C 4D 4E 4F
50 51 52 53 54 55 56 57 58 59 5A 0A 1B 40
1C 2E 1B 21 01 41 42 43 44 45 46 47 48 49
4A 4B 4C 4D 4E 4F 50 51 52 53 54 55 56 57
58 59 5A 0A 1B 40 1C 2E 1B 21 01 41 42 43
44 45 46 47 48 49 4A 4B 4C 4D 4E 4F 50 51
52 53 54 55 56 57 58 59 5A 0A 1B 40 1C 2E
1B 21 01 41 42 43 44 45 46 47 48 49 4A 4B
4C 4D 4E 4F 50 51 52 53 54 55 56 57 58 59
5A 0A 1B 40 1C 2E 1B 21 01 41 42 43 44 45
46 47 48 49 4A 4B 4C 4D 4E 4F 50 51 52 53
54 55 56 57 58 59 5A 0A 1B 40 1C 2E 1B 21
01 41 42 43 44 45 46 47 48 49 4A 4B 4C 4D
4E 4F 50 51 52 53 54 55 56 57 58 59 5A 0A
1B 40 1C 2E 1B 21 01 41 42 43 44 45 46 47
    
```

Bidirectional Printing Reference Typeface

```

Current set is: 1 (range 1 to 5)
Bidirectional vertical alignment adjusting
Power off the printer after achieving best
alignment, press FEED again for the next
value
=====

Press the feed
key first time

Current set is: 2 (range 1 to 5)
Bidirectional vertical alignment adjusting
Power off the printer after achieving best
alignment, press FEED again for the next
value
=====

Press the feed
key second time

Current set is: 3 (range 1 to 5)
Bidirectional vertical alignment adjusting
Power off the printer after achieving best
alignment, press FEED again for the next
value
=====

Press the feed
key third time

Current set is: 4 (range 1 to 5)
Bidirectional vertical alignment adjusting
Power off the printer after achieving best
alignment, press FEED again for the next
value
=====

Press the feed
key forth time
    
```

When the printing quality becomes best, you can turn off the power and the printer will save the parameters automatically.

## 2.2 LED Indicators

The power indicator (green LED) lights up when printer is switched on.

Error LED	Paper end LED	Description	Recovery
Flash	On	Memory Error	Hardware failure. Ask your technical service or dealer for assistance.
Flash	Off	The print head is over-heated	Do not print until the print head cools down.
Flash	Flash	The position of the carriage is wrong	Mechanical failure. Ask your technical service or dealer for assistance.
On	Flash	Paper end	Load paper.



## 3 Function Setting

### 3.1 Black Mark Setting

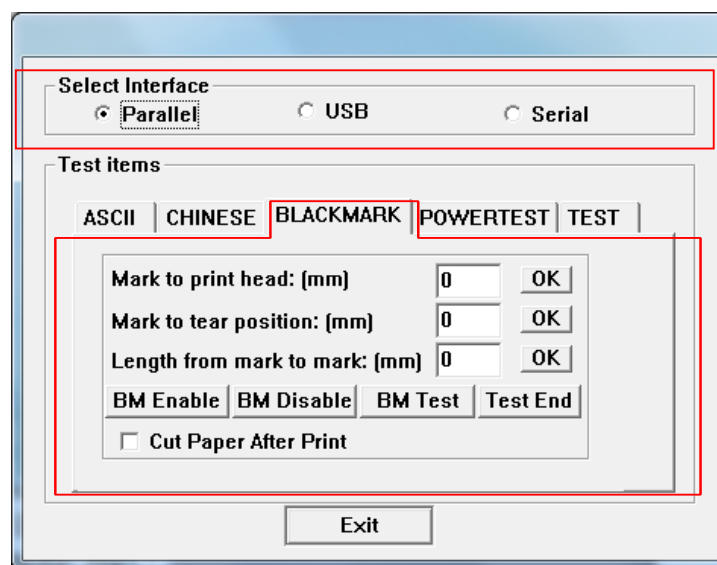
This section describes how to set up printers with black mark sensor. You can execute self-test to check whether your printer configure with black mark function or not. The self-test page will display black mark is enabled or disabled. If your printer configure with black mark, you can follow the operation guide as below.

#### 3.1.1 Black Mark Specification

Dimensions	Hight: 5mm; Width: 12mm
Reflectivity	Black mark: <10%; Others: >75%
Black mark detection position	Default: at the front right side of receipt. (It can be set at the front left side of receipt according to order requirement.)
Black mark to printing home position	-27mm ~ (the distance between two adjacent black marks - 27) mm
Black mark to cutting/tear position	-43mm ~ (the distance between two adjacent black marks - 43)mm.

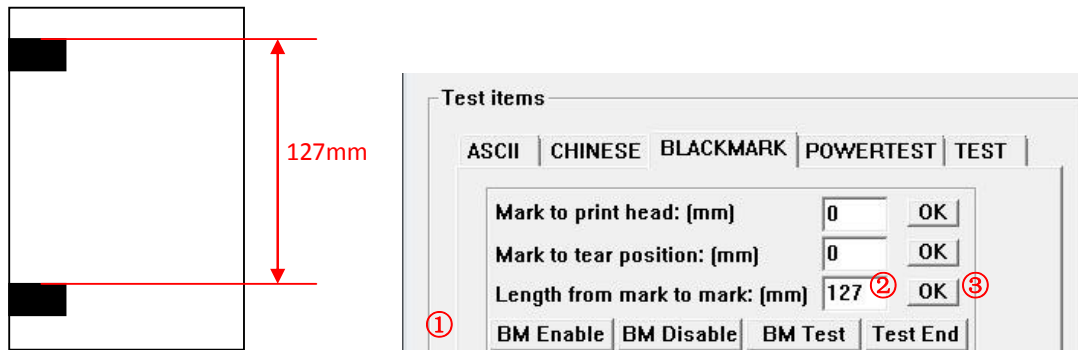
#### 3.1.2 Run Setting Tool

First of all, run “dmpro.exe” which is in the CD disk, you will see the following window for setting. Select your current interface and select “BLACK MARK” option under “Test items”.



See [www.dascom.com](http://www.dascom.com) for newest version of DMPRO Utility.

### 3.1.3 Setting Length between Two Marks



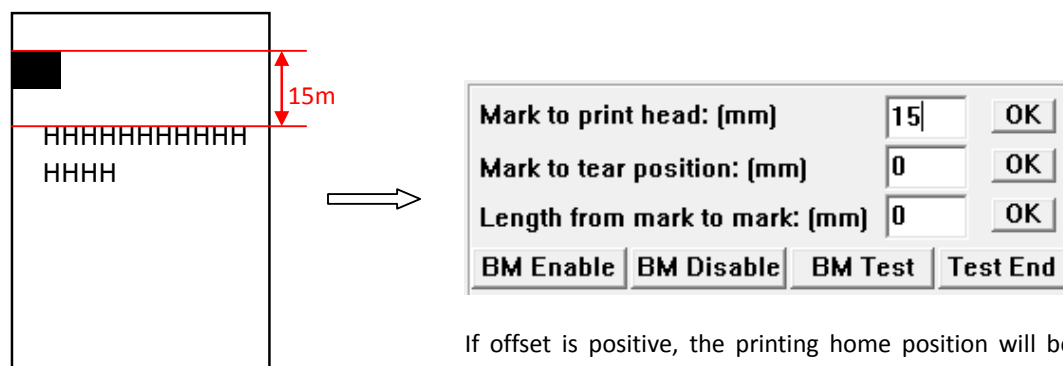
- ① Click "BM Enable" (Black Mark enable button) in the setting window. The black mark function will be valid if the Paper End LED and Error LED flash twice simultaneously.
- ② Measure the actual distance between two black marks (as shown in the top left picture), input the value in the corresponding tab.
- ③ Click "OK" to save the setting. The printer will print out the corresponding message.



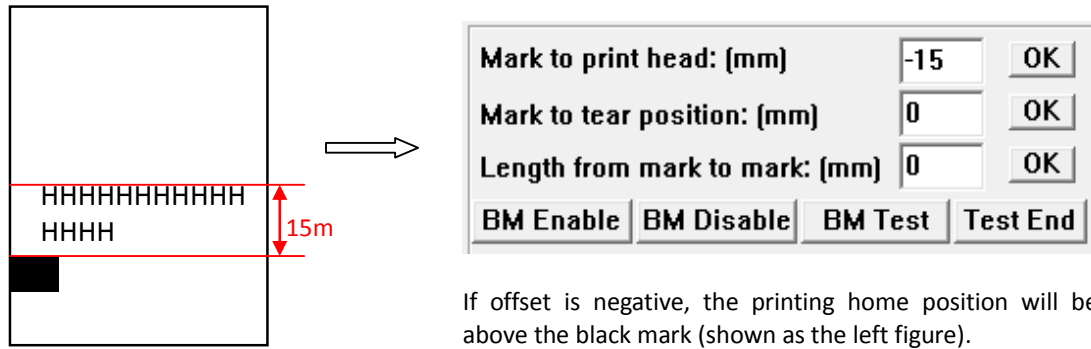
The length between two black marks is in the range from 43mm to 269mm. If printing another bill with different size, you have to re-set this parameter first.

### 3.1.4 Setting Black Mark Home Position

- ① Measure the distance between the top of the first line and the top of the black mark, input the value in the corresponding tab, shown as the below figures.



If offset is positive, the printing home position will be below the black mark (shown as the left figure).



If offset is negative, the printing home position will be above the black mark (shown as the left figure).

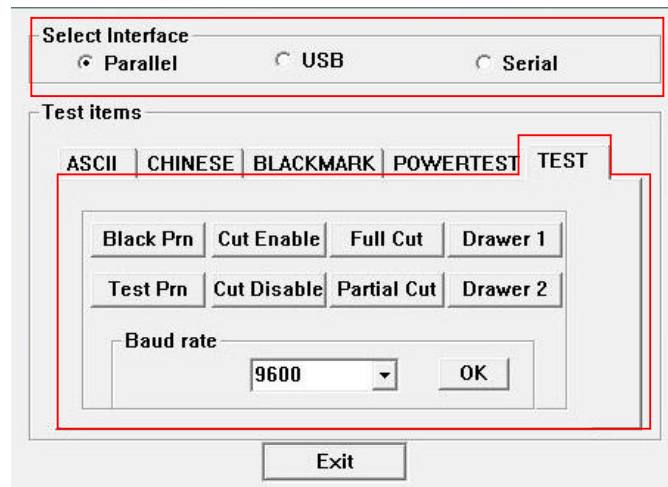
- ② Click “OK” to save the setting, the printer prints the corresponding message.



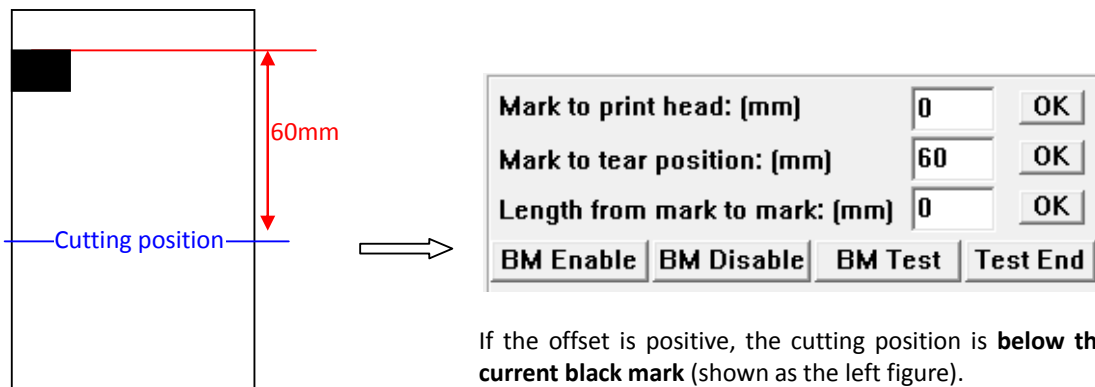
The offset range is -27mm ~ (the distance between two adjacent black marks - 27) mm.

### 3.1.5 Setting Cutting Position

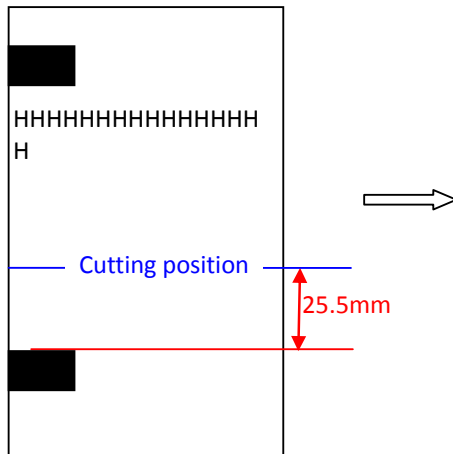
- ① Select “TEST” option in the setting window, and then select the cutting mode (full cut or partial cut). The setting will be valid if the Paper End LED and Error LED flash twice simultaneously.



- ② Measure the distance between the cutting position and the top of the black mark, then input the value in the corresponding tab, shown as the below figures.



If the offset is positive, the cutting position is **below the current black mark** (shown as the left figure).



Mark to print head: (mm)	0	OK
Mark to tear position: (mm)	-25.5	OK
Length from mark to mark: (mm)	0	OK
<input type="button" value="BM Enable"/> <input type="button" value="BM Disable"/> <input type="button" value="BM Test"/> <input type="button" value="Test End"/>		

If offset is negative, the cutting position is **above the next black mark** (shown as the left figure).

**i** Once the cutting position exceeds the offset range, then you can input negative data, i.e. setting offset for next black mark.

- ③ Click "OK" to save the setting, the printer prints the corresponding message.



The offset is within -43mm ~ (the distance between two adjacent black marks - 43)mm.

### 3.2 Driver Properties Setting



- (1) Right click the printer icon and select "properties".
- (2) Access the properties menu, select "Device settings" → "Installable option". Then you can set the printing control, cash drawer, black mark and cutter.

#### 3.2.1 Printing Control

Option	Function
Bidirectional printing	Print speed will be faster; it's a recommended option.
Uni-direction printing	Print speed will be slower but vertical alignment will be better; it's suitable for high vertical alignment request.

#### 3.2.2 Cash Drawer Setup

Option	Function
Without cash drawer	No signal for controlling cash drawer. You can choose this option when you do not use cash drawer.
Open cash drawer after printing	Send signal for controlling cash drawer and open cash drawer after printing.
Open cash drawer before printing	Send signal for controlling cash drawer and open cash drawer before printing.

### 3.2.3 Black Mark Setup

Option	Function
Without blackmark	No data for seeking black mark commands. You can choose this option when you do not need black mark function.
Feed black mark after printing	Seeking black mark and orientation after printing.
Feed black mark before printing	Seeking black mark and orientation before printing.



Black mark setting is reserved for the model with black mark sensor.

### 3.2.4 Cutter Setup

Option	Function	Remarks
Without cutter	Do not cut paper after printing.	
Feed to cutter position for cutting after page end	Feed to cutting position of each page and cut each page respectively after each page is finished printing.	If your printer does not configure with black mark sensor or black mark function is disabled, this option is invalid.
Feed to cutter position for cutting after document end	Feed to cutting position and cut paper till the entire document is finished printing.	If your printer does not configure with black mark sensor or black mark function is disabled, this option is invalid.
Cut immediately after printing finished	If you do not setup the cutting position, paper will be cut immediately after printing finished.	



Cutter setting is reserved for the model with cutter.

## 4 Troubleshooting

Your printer is extremely reliable, but occasionally problems may occur. This chapter provides information on some of the common problems you may encounter and how you may solve them. **If you encounter problems that you can not resolve, please contact your technical service or dealer for assistance.**

Read the following instructions before maintenance and avoid incorrect operation, so as to prevent injury to you and damage to the printer.

### 4.1 Processing LEDs error

Phenomenon	Cause	Recovery
No LEDs on	Incorrect power supply cable connections and power outlet	Check the power supply cable connections and the power outlet and correct them.
	The printer is powered off	Switch on the printer.
	PCB damaged	Contact your dealer for assistance.
Error LED is always on and Paper End LED flashes	Paper end	Load paper (See Page 7).
Error LED flashes	Print head overheated	Do not print until the print head cools down.

### 4.2 Processing Printing Error

Phenomenon	Cause	Recovery
Blurred or spotted printing	Roll paper is installed improperly	Check the roll paper and reinstall it.
	Poor paper quality	Use recommended roll paper.
Paper can not be fed	Paper jam	Open the printer cover, check the paper path and remove jammed paper (See Page 14).
	The printer is powered off	Switch on the printer.
Horizontal dot line missing	Print head pin damaged	Contact your dealer for assistance.

### 4.3 Removing Jammed Paper

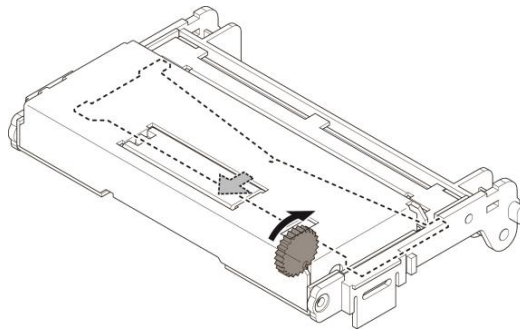
---



**After printing, print head may be hot, please do not touch!**

---

- (1) Turn the printer off, open the top cover and front cover.
- (2) DM-210: Pull up the ribbon cartridge and print head cover.  
DM-220: Turn up the cut device; pull up the ribbon cartridge and print head cover.
- (3) Remove jammed paper carefully.
  - If jammed paper gets stuck in cut device, turn the knob on the right of the cut device until the blade draws back. Then you can clear the jammed paper.



- If jammed paper gets stuck in the opening of paper path, switch off the printer and pull the jammed paper backwards carefully. Cut the wrinkled part and re-load roll paper.
- If there is little paper shred caught in the print head area, you'd better remove it with a pair of tweezers carefully.
- If there's still jammed paper that you can not remove and need to do some disassembly, please contact your technical service or dealer for assistance.

### 4.4 Maintenance

The printer is designed for a long and reliable life time. But periodic maintenance is recommended in order to assure error free working. This also would guarantee the good print quality over the life time. It is recommended to clean the printer once every six months or after 300 hours duty.

Before cleaning, switch off the printer, wait a few seconds and unplug the power cord.

- Open the cover and remove the dust, paper shreds and other debris from inside by using a soft vacuum cleaner or a brush.
- In order to remove the dirt, you can wipe clean the machine with a soft cloth dipped in alcohol instead of the ketone or TEC solvent which may cause damage to the plastic parts. Please be aware that excessive moisture will lead to the improper functioning of electronic parts.
- Clean the platen with soft cloth.

While you are cleaning the printer, in order to avoid short circuit, do not damage or loose the cable or electronic parts, do not drop metal material inside, such as Paper Clips or Pins.

## 5 Specifications

### 5.1 Printer Specification

<b>Print Parameter</b>	Print method	9 pin dot matrix (Pin $\phi$ 0.30mm)
	Print direction	bidirectional logic-seeking
	Resolution	max 160dpiH x 144dpiV
	Print speed	4.3lps (4.3 line / sec at 42 columns)
	Paper feed speed	max 5.51lps (14cm/s)
	Print width	42cpl @ 16.7cpi (7x8 matrix)
	Interface	Cash drawer: DC 24V, 1A, 6 line RJ-11 connector USB 2.0: Full Speed, standard type B Connector Serial RS232C: 25-pin Sub-D (f) connector; supports DTR or XON/XOFF handshaking protocol; baud rate 4800~38400BPS; data Format 1 initial bit + 8 data bit + 1 or 2 stop bits, no Parity. Parallel CENTRONICS: 25-pin Sub-D (m) connector, 8-bit parallel; supports BUSY/ACK handshaking protocol.
Power Sleep	Supported	
<b>Ribbon</b>	Lifetime	NH37701 (Purple): 3000,000 characters(Compatible to ERC-39) NH37703 (Black): 1000,000 characters
<b>Copies</b>		1+1 (Thickness: 0.05~0.08mm/page; Total thickness: $\leq$ 0.16mm)
<b>Memory</b>	Flash	2Mbytes
	RAM	Max. 32Kbytes data buffer
<b>Fonts</b>	Chinese	GB18030_2000 16x16
	Alphanumeric	7x8 and 9x8 ASCII font
	Code page	PC437 /PC850 /PC860 /PC863 /PC865 /PC858 /PC862 /PC737 /PC857 /PC866 /PC864
<b>Detect Function</b>	Sensors	Black mark sensor, paper end sensor
<b>Key and LED Indicator</b>	Key	Feed key
	Power indicator	Green LED
	Paper indicator	Red LED
	Error indicator	Red LED
<b>Power Supply</b>		External power adapter
	Input	AC 100V-240V 50-60Hz
	Output	DC 24V $\pm$ 5%, 2.1A
<b>Paper</b>	Paper type	Good quality normal white roll paper or carbonized roll paper
	Paper width	76.2 $\pm$ 0.5mm (3 inch)
	Paper thickness	0.06~0.085mm for single paper
	Paper roll diameter	Max. OD $\phi$ 83mm ID $\phi$ 10+2/-0mm
	Paper load	Automatical load in paper end condition when paper is inserted into the paper path.
	Paper cut	DM-210: Manual tear; DM-220: Auto-cutter; support full cut and partial cut. Full cut (Cuts the paper completely) Partial cut (one point left uncut in center position) Note: The point length is 2% of the paper width.
	Paper Feed	Friction feed



<b>Physical Spec.</b>	Operating condition	0~40°C/40~90%RH
	Storage condition	-40~55°C/≤93%RH
	Dimensions	156×260×130 (L×W×H mm)
	Color	Black
	Weight	Approx. 1.85kg (excluding roll paper)
<b>Emulation</b>		ESC/POS Compatible command set
<b>Noise</b>		The noise level is less than 50 dBA
<b>Reliability</b>	Printhead lifetime	150,000,000 characters
	MTBF	100,000 hours
	Cutter lifetime (DM-220 Only)	500,000 cuts Conditions: Paper thickness < 0.16mm Max frequency: 20 cuts/min
	MCBF	10,000,000 lines
<b>Software</b>	Driver	32bit: Windows (Win 7/Win 8/Vista/XP/2000) 64bit: Windows (Win 7/ Win 8/Vista/XP/2000) Be compatible with the EPSON POS Application (ESC/POS OS)
	Utilities	Setup tool (The printer parameter can be uploaded and downloaded, and the firmware version updating is supported.)
<b>Certification</b>		CCC, CE-Mark(CB, LVD, EMC), CB, UL, FCC and Energy Star

## 5.2 Interfaces

Power Supply interface, USB interface and cashbox interface are standard interfaces for the printer.

Serial or Parallel interface is a factory feature only.

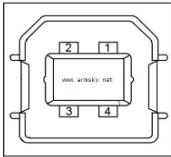
The interface pin assignment is listed below.

### 5.2.1 USB interface

#### USB interface pin assignment

PIN No.	Description	Classic wire color
1	VBUS	Red
2	D-	White
3	D+	Green
4	GND	Black

#### USB interface connector diagram

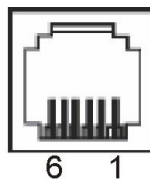


### 5.2.2 Cash Drawer interface

#### Cashbox interface pin assignment

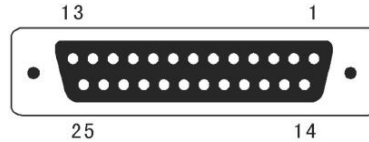
Pin No.	Description	Direction
1	Structure GND	---
2	Cashbox drive signal	Output
3	NC	Empty
4	DC +24V	Output
5	Cashbox drive signal	Output
6	Signal GND	---

#### Cashbox interface connector (RJ-11) diagram



### 5.2.3 Serial interface

The serial interface of this printer is compatible with RS-232C, use DB25 hole type socket, support hardware handshaking protocol, the default baud rate and data format are 9600BPS, 8 data bit, no parity, and 1 stop bit. Below is the pin No. of the serial interface socket.



#### Pin signal definition of serial interface

Pin No	Signal Name	Direction	Illumination
2	TXD	From printer to PC	Send data from printer to PC
3	RXD	From PC to printer	Printer receive data from PC
20	DTR	From printer to PC	When the signal is "negative" (-3V to -15V), it means that the printer is "busy" and can not receive data; While the signal is "positive" (+3V to +15V), it means that the printer is "ready" and can receive the data.
1,7	GND	---	GND

#### Note:

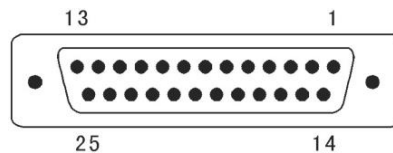
The default baud rate is 9600 BPS and the baud rate can be changed by sending the hexadecimal command "1C AA 22 XX".

XX=00 indicates 1200 BPS,  
 XX=01 indicates 2400 BPS,  
 XX=02 indicates 4800 BPS,  
 XX=03 indicates 9600 BPS,  
 XX=04 indicates 19200 BPS,  
 XX=05 indicates 38400 BPS.

### 5.2.4 Parallel interface

The parallel interface of this printer is compatible with CENTRONICS, support BUSY /ACK handshaking protocol, use DB25 pin type interface.

Pin No. of DB25 pin interface as below



Parallel Interface Pin No.25 Below is the pin signal definition of parallel interface socket:

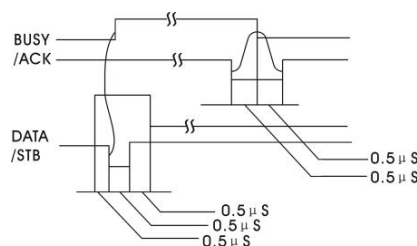
Pin No	Signal Name	Direction	Illumination
1	/STB	Input	Select trigger, input data when the signal is at falling edge.
2	DATA1	Input	These signals indicate the parallel data information from the first to eighth bits. For each signal, when the logic is "1" indicates "high level", when the logic is "0" indicates "low level".
3	DATA2	Input	
4	DATA3	Input	
5	DATA4	Input	
6	DATA5	Input	
7	DATA6	Input	
8	DATA7	Input	
9	DATA8	Input	
10	/ACK	Output	For responson pulse, "low" level indicates that the printer has accepted the data and be ready for accepting next data.
11	BUSY	Output	"High" level indicates that the printer is "busy" and can not accept data now. "Low" level indicates "idle".
12	PE	Output	Drop down to "Low" level with resistance, "High" level indicates paper end.
13	SEL	Output	Full up to "High" level with resistance and the "High" level indicates the printer is online.
15	/ERR	Output	Full up to "High" level with resistance and the "High" level indicates no error.
14	/AUTOFD	Input	Auto paper feed
16	/INIT	Input	Initialize the printer
17	/SELIN	Input	online
18—25	GND	---	GND, logic "0" level

Note: (1) "Input" indicates signals from PC to printer

"Output" indicates signals from Printer to PC

(2) The average logic level of signal is TTL level.

Signal Timing Diagram for parallel interface as shown below:



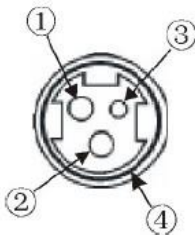
### 5.3 Power Adapter

The external power supply of this printer is 24VDC, 2.1A. The type of power socket is A-1009-3P.

#### Power supply socket pin assignment

Pin Number	Signal Name
1	+24 V
2	GND
3	N.C
4	F.G.

#### Power supply connector diagram

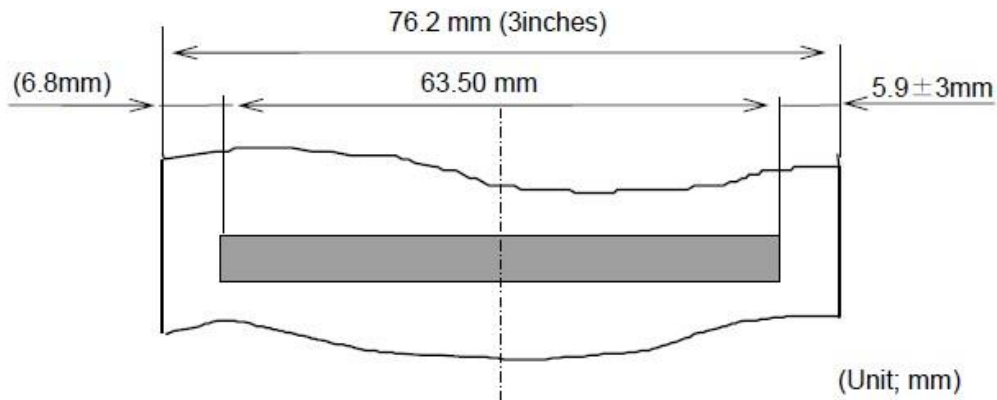


### 5.4 Paper Specification

The printer paper is supplied by the user. Please use only paper that fulfills the following requirements to assure good print quality and stable paper feed.

Roll paper	Normal paper	Paper width	76.2 ± 0.5 ( 3 ± 1/36 inches )
		Outer diameter of roll	83 mm dia. (3.25 inches) or less (Maximum inside diameter of the paper roll core must be 10 +2/-0 mm (0.394 +0.078/-0 inches))
		Paper thickness	0.06 ~ 0.085 mm
		Paper weight	52.3 ~ 64.0 g/m <sup>2</sup> ( JIS P8124 ) (14 – 17 lb) (45 - 55 kg / 1000 sheets / 788mm x 1091mm)
	Pressure-sensitive paper		2 ply of non-carbon paper (1P Original + 1P copy)
		Paper thickness	0.05 ~ 0.08 mm /sheet (Note: total thickness is less than 0.16 mm)

Printable area



Note: Values for the printable area are calculated at the center of the wire dot.

## 6 Character Code Pages

### 6.1 Common to all pages (International Character Set: USA)

HEX	0	1	2	3	4	5	6	7
0	NUL 00	DLE 16	SP 32	0 48	@ 64	P 80	` 96	p 112
1		XON 17	! 33	1 49	A 65	Q 81	a 97	q 113
2			" 34	2 50	B 66	R 82	b 98	r 114
3		XOFF 19	# 35	3 51	C 67	S 83	c 99	s 115
4	EOT 04	DC4 20	\$ 36	4 52	D 68	T 84	d 100	t 116
5	ENQ 05	NAK 21	% 37	5 53	E 69	U 85	e 101	u 117
6	ACK 06		& 38	6 54	F 70	V 86	f 102	v 118
7			' 39	7 55	G 71	W 87	g 103	w 119
8		CAN 24	( 40	8 56	H 72	X 88	h 104	x 120
9	HT 09		) 41	9 57	I 73	Y 89	i 105	y 121
A	LF 10		* 42	: 58	J 74	Z 90	j 106	z 122
B		ESC 27	+ 43	; 59	K 75	[ 91	k 107	{ 123
C	FF 12	FS 28	, 44	< 60	L 76	\ 92	l 108	 124
D	CR 13	GS 29	- 45	= 61	M 77	] 93	m 109	} 125
E		RS 30	. 46	> 62	N 78	^ 94	n 110	~ 126
F			/ 47	? 63	O 79	_ 95	o 111	SP 127

## 6.2 [PC437: USA, Standard Europe]




HEX	8	9	A	B	C	D	E	F
0	Ç 128	É 144	á 160	☐ 176	L 192	⌌ 208	α 224	≡ 240
1	ü 129	æ 145	í 161	☐ 177	⌒ 193	⌒ 209	β 225	± 241
2	é 130	Æ 146	ó 162	☐ 178	⌒ 194	⌒ 210	Γ 226	≥ 242
3	â 131	ô 147	ú 163	 179	⌒ 195	⌒ 211	π 227	≤ 243
4	ä 132	ö 148	ñ 164	⌒ 180	— 196	⌒ 212	Σ 228	[ 244
5	à 133	ò 149	Ñ 165	⌒ 181	⌒ 197	⌒ 213	σ 229	] 245
6	á 134	û 150	ª 166	⌒ 182	⌒ 198	⌒ 214	μ 230	÷ 246
7	ç 135	ù 151	º 167	⌒ 183	⌒ 199	⌒ 215	τ 231	≈ 247
8	ê 136	ÿ 152	¿ 168	⌒ 184	⌒ 200	⌒ 216	Φ 232	° 248
9	ë 137	Ö 153	Γ 169	⌒ 185	⌒ 201	⌒ 217	Θ 233	• 249
A	è 138	Ü 154	¬ 170	⌒ 186	⌒ 202	⌒ 218	Ω 234	· 250
B	ï 139	ø 155	½ 171	⌒ 187	⌒ 203	■ 219	δ 235	√ 251
C	î 140	£ 156	¼ 172	⌒ 188	⌒ 204	■ 220	∞ 236	ⁿ 252
D	ì 141	¥ 157	¡ 173	⌒ 189	= 205	■ 221	Φ 237	² 253
E	Ä 142	ƒ 158	« 174	⌒ 190	⌒ 206	■ 222	ε 238	■ 254
F	Å 143	f 159	» 175	⌒ 191	⌒ 207	■ 223	∩ 239	SP 255



## 6.3 [PC850: Multilingual]

HEX	8	9	A	B	C	D	E	F
0	Ç 128	É 144	á 160	☼ 176	Ł 192	ø 208	Ó 224	- 240
1	Û 129	æ 145	í 161	☼ 177	Ł 193	Đ 209	β 225	± 241
2	é 130	Æ 146	ó 162	☼ 178	Ŧ 194	Ê 210	Ô 226	= 242
3	â 131	ô 147	ú 163	 179	† 195	Ë 211	Ò 227	¼ 243
4	ä 132	ö 148	ñ 164	‡ 180	- 196	È 212	ö 228	¶ 244
5	à 133	ò 149	Ñ 165	À 181	† 197	ı 213	Ö 229	§ 245
6	â 134	û 150	ª 166	Â 182	ã 198	Í 214	μ 230	+ 246
7	ç 135	ù 151	º 167	À 183	Ã 199	Î 215	þ 231	· 247
8	ê 136	ÿ 152	¿ 168	© 184	Ł 200	Ï 216	þ 232	° 248
9	ë 137	Ö 153	® 169	‡ 185	Ŧ 201	Ɔ 217	Ú 233	¨ 249
A	è 138	Ü 154	¬ 170	 186	Ł 202	Ɔ 218	Û 234	· 250
B	ÿ 139	ø 155	½ 171	¶ 187	Ŧ 203	■ 219	Ù 235	¹ 251
C	î 140	£ 156	¼ 172	¶ 188	Ŧ 204	■ 220	ý 236	³ 252
D	ì 141	Ø 157	ï 173	¢ 189	= 205	ı 221	Ý 237	² 253
E	Ä 142	x 158	« 174	¥ 190	Ŧ 206	İ 222	- 238	■ 254
F	Å 143	f 159	» 175	Ɔ 191	□ 207	■ 223	' 239	SP 255




## 6.4 [PC860: Portuguese]

HEX	8	9	A	B	C	D	E	F
0	Ç 128	É 144	á 160	 176	L 192	⌌ 208	α 224	≡ 240
1	ü 129	À 145	í 161	 177	⊥ 193	⌌ 209	β 225	± 241
2	é 130	È 146	ó 162	 178	⊥ 194	⌌ 210	Γ 226	≥ 242
3	â 131	ô 147	ú 163	 179	⊥ 195	⌌ 211	π 227	≤ 243
4	ã 132	õ 148	ñ 164	⊥ 180	— 196	⌌ 212	Σ 228	∫ 244
5	à 133	ò 149	Ñ 165	⊥ 181	⊥ 197	⌌ 213	σ 229	∫ 245
6	Á 134	Ú 150	ã 166	⊥ 182	⊥ 198	⌌ 214	μ 230	÷ 246
7	ç 135	ù 151	º 167	⌌ 183	⊥ 199	⊥ 215	τ 231	≈ 247
8	ê 136	î 152	¿ 168	⊥ 184	⌌ 200	⊥ 216	Φ 232	° 248
9	Ê 137	Ï 153	Ò 169	⊥ 185	⌌ 201	⌌ 217	Θ 233	• 249
A	è 138	Û 154	¬ 170	⊥ 186	⌌ 202	⌌ 218	Ω 234	• 250
B	Í 139	¢ 155	½ 171	⊥ 187	⌌ 203	■ 219	ø 235	√ 251
C	Ô 140	£ 156	¼ 172	⊥ 188	⊥ 204	■ 220	∞ 236	ⁿ 252
D	ì 141	Û 157	ì 173	⊥ 189	= 205	■ 221	Φ 237	² 253
E	Ã 142	Pl 158	« 174	⊥ 190	⊥ 206	■ 222	ε 238	■ 254
F	Â 143	Ó 159	» 175	⊥ 191	⊥ 207	■ 223	∩ 239	SP 255

## 6.5 [PC863: Canadian-French]

HEX	8	9	A	B	C	D	E	F
0	Ç 128	É 144	Ì 160	⋮ 176	Ł 192	⋈ 208	α 224	≡ 240
1	Û 129	È 145	´ 161	⋮ 177	⊥ 193	⌣ 209	β 225	± 241
2	é 130	Ê 146	ó 162	⋮ 178	⌢ 194	⌢ 210	Γ 226	≥ 242
3	â 131	ô 147	ú 163	 179	† 195	⋈ 211	π 227	≤ 243
4	Â 132	Ë 148	¨ 164	‡ 180	— 196	⋈ 212	Σ 228	 244
5	à 133	Ï 149	˙ 165	‡ 181	† 197	ƒ 213	σ 229	∫ 245
6	¶ 134	û 150	³ 166	‡ 182	† 198	π 214	μ 230	÷ 246
7	ç 135	ù 151	— 167	⌢ 183	⋈ 199	⋈ 215	τ 231	≈ 247
8	ê 136	⌢ 152	Î 168	‡ 184	⋈ 200	⋈ 216	Φ 232	° 248
9	ë 137	Û 153	ƒ 169	‡ 185	ƒ 201	∫ 217	Θ 233	• 249
A	è 138	Ü 154	˘ 170	⋈ 186	⋈ 202	ƒ 218	Ω 234	• 250
B	ÿ 139	ç 155	½ 171	‡ 187	⌢ 203	■ 219	δ 235	√ 251
C	î 140	£ 156	¼ 172	‡ 188	⋈ 204	■ 220	∞ 236	ⁿ 252
D	= 141	Ù 157	¾ 173	⋈ 189	= 205	■ 221	Φ 237	² 253
E	À 142	Û 158	« 174	‡ 190	⋈ 206	■ 222	ε 238	■ 254
F	§ 143	f 159	» 175	‡ 191	⋈ 207	■ 223	∩ 239	SP 255

## 6.6 [PC865: Nordic]

HEX	8	9	A	B	C	D	E	F
0	Ç 128	É 144	á 160	 176	L 192	⊥ 208	α 224	≡ 240
1	ü 129	æ 145	í 161	 177	⊥ 193	⊥ 209	β 225	± 241
2	é 130	Æ 146	ó 162	 178	⊥ 194	⊥ 210	Γ 226	≥ 242
3	â 131	ô 147	ú 163	 179	⊥ 195	⊥ 211	π 227	≤ 243
4	ä 132	ö 148	ñ 164	⊥ 180	- 196	⊥ 212	Σ 228	 244
5	à 133	ò 149	Ñ 165	⊥ 181	⊥ 197	F 213	σ 229	 245
6	á 134	û 150	ª 166	⊥ 182	⊥ 198	⊥ 214	μ 230	+ 246
7	ç 135	ù 151	º 167	⊥ 183	⊥ 199	⊥ 215	τ 231	≈ 247
8	ê 136	ÿ 152	¿ 168	⊥ 184	⊥ 200	⊥ 216	Φ 232	° 248
9	ë 137	Ö 153	ƒ 169	⊥ 185	⊥ 201	⊥ 217	Θ 233	• 249
A	è 138	Ü 154	ƒ 170	⊥ 186	⊥ 202	⊥ 218	Ω 234	• 250
B	ÿ 139	ø 155	½ 171	⊥ 187	⊥ 203	■ 219	δ 235	√ 251
C	î 140	£ 156	¼ 172	⊥ 188	⊥ 204	■ 220	∞ 236	ⁿ 252
D	ì 141	Ø 157	ï 173	⊥ 189	= 205	■ 221	Φ 237	² 253
E	Ä 142	Pt 158	« 174	⊥ 190	⊥ 206	■ 222	ε 238	■ 254
F	Å 143	f 159	▣ 175	⊥ 191	⊥ 207	■ 223	∩ 239	SP 255

## 6.7 [PC858: Euro]

HEX	8	9	A	B	C	D	E	F
0	Ç 128	É 144	á 160	☐ 176	L 192	ø 208	Ó 224	- 240
1	ü 129	æ 145	í 161	☐ 177	⊥ 193	Ð 209	β 225	± 241
2	é 130	Æ 146	ó 162	☐ 178	⊥ 194	Ê 210	Ô 226	= 242
3	â 131	ô 147	ú 163	 179	† 195	Ë 211	Ò 227	¼ 243
4	ä 132	ö 148	ñ 164	† 180	- 196	È 212	ø 228	¶ 244
5	à 133	ò 149	Ñ 165	À 181	† 197	€ 213	Õ 229	§ 245
6	á 134	û 150	ª 166	Â 182	ã 198	Í 214	μ 230	+ 246
7	ç 135	ù 151	º 167	Ã 183	Ä 199	Î 215	þ 231	· 247
8	ê 136	ÿ 152	¿ 168	© 184	ℒ 200	Ï 216	þ 232	° 248
9	ë 137	Ö 153	® 169	¶ 185	℞ 201	Ɔ 217	Ú 233	“ 249
A	è 138	Ü 154	¬ 170	 186	℄ 202	Ɔ 218	Û 234	· 250
B	ÿ 139	ø 155	½ 171	¶ 187	⊥ 203	■ 219	Ù 235	¹ 251
C	î 140	£ 156	¼ 172	¶ 188	¶ 204	■ 220	ý 236	³ 252
D	ì 141	Ø 157	ì 173	¢ 189	= 205	¡ 221	Ý 237	² 253
E	Ä 142	x 158	« 174	¥ 190	¶ 206	Ï 222	- 238	■ 254
F	Å 143	f 159	» 175	¶ 191	□ 207	■ 223	' 239	SP 255









## 6.8 [PC866: Cyrillic #2]

HEX	8	9	A	B	C	D	E	F
0	А 128	Р 144	а 160	▒ 176	Л 192	л 208	р 224	ё 240
1	Б 129	С 145	б 161	▓ 177	Л 193	т 209	с 225	ё 241
2	В 130	Т 146	в 162	█ 178	Т 194	т 210	т 226	Є 242
3	Г 131	У 147	г 163	 179	т 195	л 211	у 227	є 243
4	Д 132	Ф 148	д 164	┆ 180	— 196	л 212	ф 228	ї 244
5	Е 133	Х 149	е 165	┆ 181	† 197	ф 213	х 229	і 245
6	Ж 134	Ц 150	ж 166	 182	ѓ 198	г 214	ц 230	ÿ 246
7	З 135	Ч 151	з 167	т 183	 199	 215	ч 231	ÿ 247
8	И 136	Ш 152	и 168	ѓ 184	л 200	† 216	ш 232	° 248
9	Й 137	Щ 153	й 169	 185	г 201	┆ 217	щ 233	• 249
A	К 138	Ъ 154	к 170	 186	л 202	г 218	ъ 234	• 250
B	Л 139	Ы 155	л 171	т 187	т 203	█ 219	ы 235	√ 251
C	М 140	Ь 156	м 172	┆ 188	 204	█ 220	ь 236	№ 252
D	Н 141	Э 157	н 173	л 189	= 205	█ 221	э 237	▣ 253
E	О 142	Ю 158	о 174	┆ 190	 206	█ 222	ю 238	■ 254
F	П 143	Я 159	п 175	┆ 191	л 207	█ 223	я 239	SP 255

## 6.9 [PC862: Hebrew]


HEX	8	9	A	B	C	D	E	F
0	κ 128	י 144	á 160	☐ 176	L 192	⌌ 208	α 224	≡ 240
1	כ 129	ו 145	í 161	☐ 177	⌋ 193	⌋ 209	β 225	± 241
2	ג 130	ז 146	ó 162	☐ 178	T 194	π 210	Γ 226	≥ 242
3	ד 131	ח 147	ú 163	 179	⌋ 195	⌌ 211	π 227	≤ 243
4	ה 132	ט 148	ñ 164	⌋ 180	— 196	⌌ 212	Σ 228	∫ 244
5	ו 133	י 149	Ñ 165	⌋ 181	⌋ 197	F 213	σ 229	∫ 245
6	ז 134	כ 150	ª 166	⌋ 182	⌋ 198	π 214	μ 230	+ 246
7	ח 135	ל 151	º 167	π 183	⌋ 199	⌋ 215	τ 231	≈ 247
8	ט 136	מ 152	¿ 168	⌋ 184	⌌ 200	⌋ 216	Φ 232	° 248
9	י 137	נ 153	ƒ 169	⌋ 185	⌋ 201	⌋ 217	Θ 233	· 249
A	כ 138	ס 154	ƒ 170	⌋ 186	⌌ 202	Γ 218	Ω 234	· 250
B	ל 139	ע 155	½ 171	⌋ 187	⌋ 203	■ 219	δ 235	√ 251
C	מ 140	פ 156	¼ 172	⌋ 188	⌋ 204	■ 220	∞ 236	ⁿ 252
D	נ 141	צ 157	ı 173	⌌ 189	= 205	■ 221	φ 237	² 253
E	ס 142	ק 158	« 174	⌋ 190	⌋ 206	■ 222	ε 238	■ 254
F	ע 143	ר 159	» 175	⌋ 191	⌌ 207	■ 223	∩ 239	SP 255

6.10 [PC737: Geek]

HEX	8	9	A	B	C	D	E	F
0	A 128	P 144	ι 160	 176	L 192	⋈ 208	ω 224	Ω 240
1	B 129	Σ 145	κ 161	 177	⊥ 193	⌊ 209	ά 225	± 241
2	Γ 130	Τ 146	λ 162	 178	⊥ 194	⋈ 210	έ 226	≥ 242
3	Δ 131	Υ 147	μ 163	 179	⊥ 195	⋈ 211	ή 227	≤ 243
4	E 132	Φ 148	ν 164	⊥ 180	— 196	⋈ 212	ϊ 228	Ï 244
5	Z 133	X 149	ξ 165	⊥ 181	⊥ 197	F 213	ι 229	ÿ 245
6	H 134	Ψ 150	ο 166	⋈ 182	⊥ 198	⋈ 214	ό 230	÷ 246
7	Θ 135	Ω 151	π 167	⋈ 183	⋈ 199	⋈ 215	ύ 231	≈ 247
8	I 136	α 152	ρ 168	⊥ 184	⋈ 200	⊥ 216	ü 232	° 248
9	K 137	β 153	σ 169	⋈ 185	⋈ 201	⋈ 217	ώ 233	• 249
A	Λ 138	γ 154	ς 170	⋈ 186	⋈ 202	⋈ 218	À 234	· 250
B	M 139	δ 155	τ 171	⋈ 187	⋈ 203	 219	É 235	√ 251
C	N 140	ε 156	υ 172	⋈ 188	⋈ 204	 220	Ḥ 236	ⁿ 252
D	≡ 141	ζ 157	φ 173	⋈ 189	= 205	 221	Ì 237	² 253
E	O 142	η 158	χ 174	⋈ 190	⋈ 206	 222	Ò 238	■ 254
F	Π 143	θ 159	ψ 175	⋈ 191	⋈ 207	 223	Υ 239	SP 255



## 6.11 [PC864: Arabic]

HEX	8	9	A	B	C	D	E	F
0	° 128	β 144	SP 160	• 176	¢ 192	ذ 208	- 224	? 240
1	· 129	∞ 145	 161	١ 177	ء 193	ر 209	ف 225	? 241
2	· 130	φ 146	آ 162	٢ 178	آ 194	ز 210	ق 226	ن 242
3	√ 131	± 147	£ 163	٣ 179	أ 195	س 211	ك 227	ه 243
4	 132	½ 148	α 164	٤ 180	ؤ 196	شد 212	ل 228	ه 244
5	— 133	¼ 149	آ 165	٥ 181	ع 197	صد 213	م 229	ى 245
6	 134	≈ 150	SP 166	٦ 182	ذ 198	ض 214	ن 230	ي 246
7	† 135	« 151	€ 167	٧ 183	ا 199	ط 215	ه 231	غ 247
8	† 136	» 152	آ 168	٨ 184	ب 200	ظ 216	و 232	ق 248
9	T 137	لا 153	ب 169	٩ 185	ة 201	ع 217	ى 233	لا 249
A	† 138	لا 154	ت 170	ف 186	ت 202	غ 218	ي 234	لا 250
B	L 139	SP 155	ث 171	؛ 187	ث 203	ا 219	ض 235	ل 251
C	٦ 140	SP 156	، 172	س 188	ج 204	٦ 220	ع 236	ك 252
D	Γ 141	لا 157	ج 173	ش 189	ح 205	÷ 221	غ 237	ي 253
E	L 142	لا 158	ح 174	ص 190	خ 206	x 222	غ 238	■ 254
F	ل 143	ء 159	خ 175	? 191	د 207	ع 223	م 239	SP 255

## 6.12 [PC857: Turkish]

HEX	8	9	A	B	C	D	E	F
0	Ç 128	É 144	á 160	☐ 176	L 192	ª 208	Ó 224	- 240
1	ü 129	æ 145	í 161	☐ 177	⊥ 193	ª 209	β 225	± 241
2	é 130	Æ 146	ó 162	☐ 178	T 194	Ê 210	Ô 226	SP 242
3	â 131	ô 147	ú 163	 179	† 195	Ë 211	Ò 227	¼ 243
4	ä 132	ö 148	ñ 164	† 180	- 196	È 212	ö 228	¶ 244
5	à 133	ò 149	Ñ 165	Á 181	† 197	€ 213	Õ 229	§ 245
6	â 134	û 150	Ğ 166	Â 182	ã 198	Í 214	μ 230	÷ 246
7	ç 135	ù 151	ğ 167	À 183	Ã 199	Î 215	SP 231	· 247
8	ê 136	ï 152	¿ 168	© 184	ℒ 200	Ï 216	× 232	° 248
9	ë 137	Ö 153	® 169	¶ 185	℞ 201	Ɔ 217	Ú 233	¨ 249
A	è 138	Ü 154	¬ 170	 186	⊥ 202	Ɔ 218	Û 234	· 250
B	ï 139	ø 155	½ 171	¶ 187	⊥ 203	■ 219	Ü 235	¹ 251
C	î 140	£ 156	¼ 172	¶ 188	¶ 204	■ 220	Û 236	³ 252
D	ı 141	Ø 157	ı 173	¢ 189	= 205	ı 221	ÿ 237	² 253
E	Ä 142	Ş 158	« 174	¥ 190	¶ 206	ı 222	- 238	■ 254
F	Å 143	Ş 159	» 175	¶ 191	ª 207	■ 223	' 239	SP 255

## 7 Printing Control Command Sets

The control command sets are compatible with ESC/POS command set.

List of Commands:

ASCII Code	Hex	Function Illumination
HT	09	Moves the print head to the next horizontal tab position
LF	0A	Causes the data in the line buffer to be printed and advances the paper one line
CR	0D	Causes the line of data to be printed and returns the current print position to the left margin
ESC SP n	1B 20 n	Set the space between characters to n/160 inch
ESC ! n	1B 21 n	Set character printing mode
ESC % n	1B 25 n	Allow/Prohibit user-defined character
ESC &	1B 26	Set user-defined character
ESC *	1B 2A	Set graphic dot matrix
ESC 2	1B 32	Select the line space to 1/6 inch
ESC 3 n	1B 33 n	Select the line space to 1/144 inch
ESC <	1B 3C	bring the print head back to the left margin
ESC ? n	1B 3F n	Cancel user-defined character
ESC @	1B 40	Initialize the printer
ESC D n NULL	1B 44 n 0	Set/Clear all horizontal tab position
ESC J n	1B 4A n	Causes the line of data to be printed and advances the paper n/144 inch
ESC K n	1B 4B n	Causes the line of data to be printed and advances the paper n/144 inch reversely
ESC R n	1B 52 n	Select an International Character Set
ESC U n	1B 55 n	Set/Cancel unidirectional printing
ESC c 3 n	1B 63 33 n	Select paper end sensor
ESC c 4 n	1B 63 34 n	Set to stop printing when paper end
ESC c 5 n	1B 63 35 n	Allow/Prohibit feeder key
ESC d n	1B 64 n	Causes the line of data to be printed and advances the paper n lines
ESC e n	1B 65 n	Causes the line of data to be printed and advances n line reversely
ESC p	1B 70	Produce cashbox drive pulse
ESC t n	1B 74 n	Select Character Set
GS FF	1D 0C	Send the black mark paper to the printing initial position
ESC C n	1B 43 n	Set the page length to n line space
GS ( F pL pH a m nL nH	1D 28	Set the orientation offset of black mark
FS ( L	1C 28 4C	Feed the paper to the cut/tear position
GS V m	1D 56 m	Select the cut/tear mode and cut/tear paper
	1D 56 m n	
ESC i	1B 69	Cut the paper completely
ESC m	1B 6D	Cut the paper partially

## FCC STATEMENT

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
  - a) This device may not cause harmful interference.
  - b) This device must accept any interference received, including interference that may cause undesired operation.
  
2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.



This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

---

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orientate or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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